

From Student Intern to Staff and Everything in Between

Allison Barber

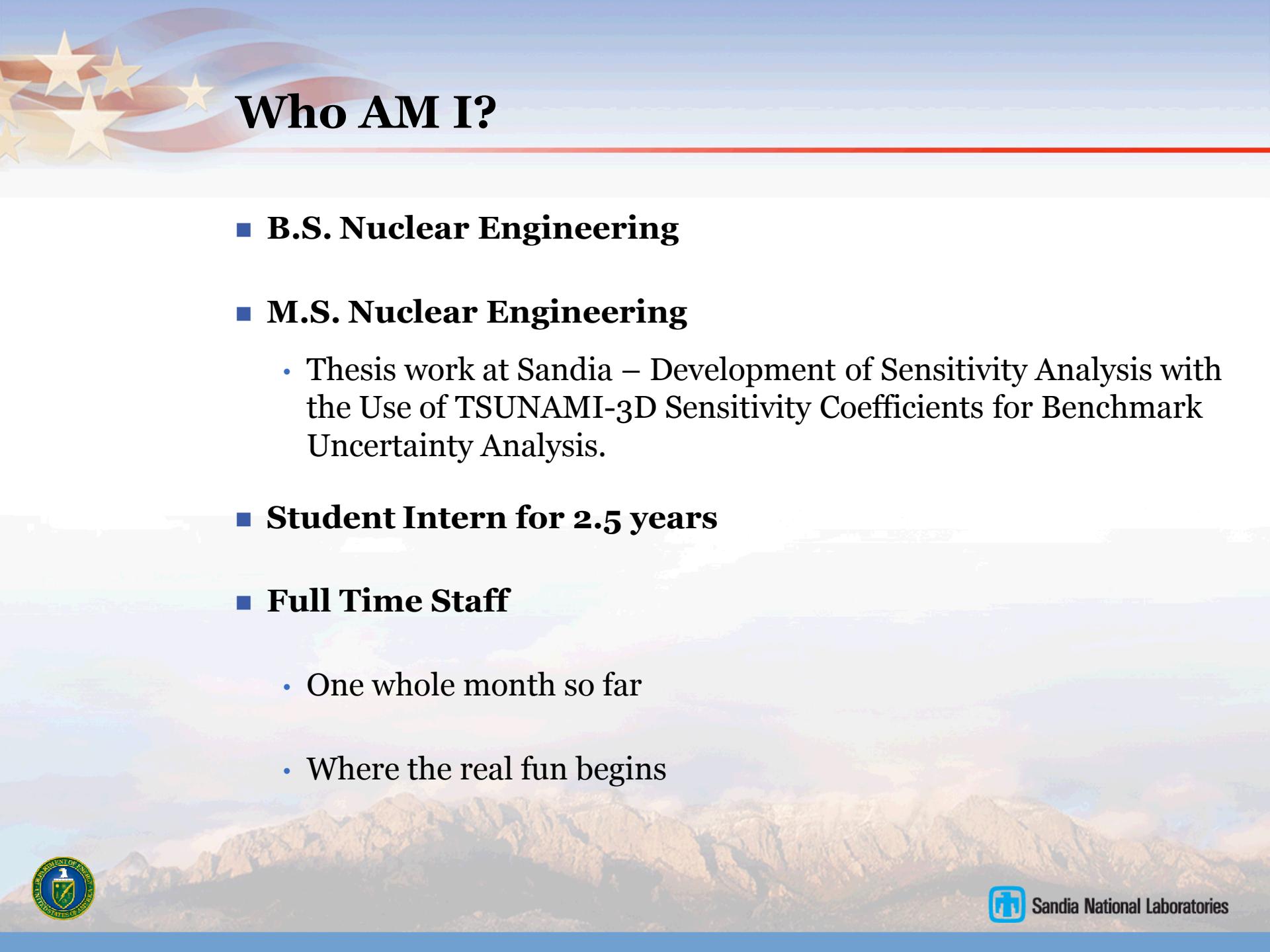
Member of Technical Staff

SEERI Summer Seminar

06/30/2010



Sandia National Laboratories



Who AM I?

- **B.S. Nuclear Engineering**
- **M.S. Nuclear Engineering**
 - Thesis work at Sandia – Development of Sensitivity Analysis with the Use of TSUNAMI-3D Sensitivity Coefficients for Benchmark Uncertainty Analysis.
- **Student Intern for 2.5 years**
- **Full Time Staff**
 - One whole month so far
 - Where the real fun begins



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Society Involvement



- **Will Never Learn to Say No...**
 - American Nuclear Society
 - Nuclear Criticality Safety Division – Secretary
 - Young Members Group
 - Student Sections Committee
 - Professional Women of ANS
 - ANGLE (NAYGN) – Vice Chair/Chair-Elect
 - Started as a student
 - Many Outreach Events





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ANGLE Plug

- **North American Young Generation in Nuclear**
 - Young Professionals Group
 - Professional Development and Knowledge Transfer
 - Outreach and Volunteering

- **Upcoming Event:**
 - Lunch at Hardin Field – July 15th 11:45-1:30
 - Food, Games and Networking
 - Anyone is Welcome



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Work

■ Student Internship

- SCALE/KENO and MCNP Modeling

- Learned by Example

Critical Experiments

- Awesome! (Not many people are doing these)

■ Staff

- Whole month so far...

- TA-V Transformation
 - ACRR/GIF Operations
 - Critical Experiments

KENO

TRITON

SCALE

Standardized Computer Analyses for Licensing Evaluation



Java Plots Especially Nice Output



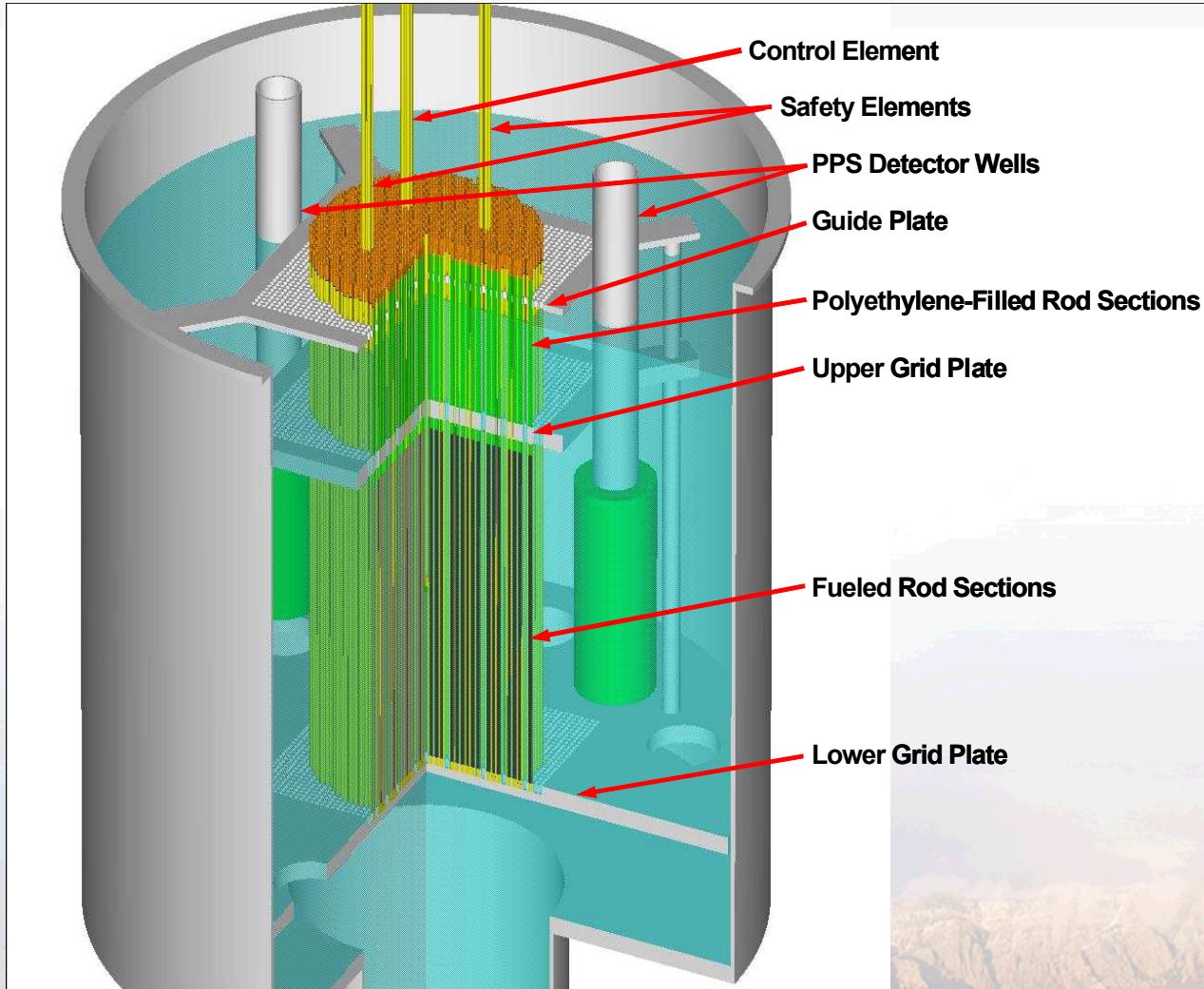
Tools for Sensitivity and Uncertainty Analysis Methodology Implementation



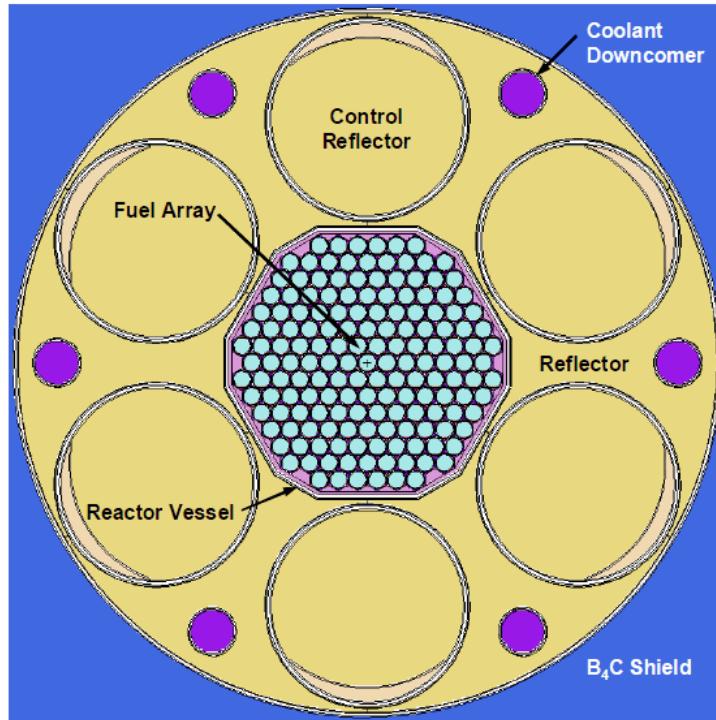
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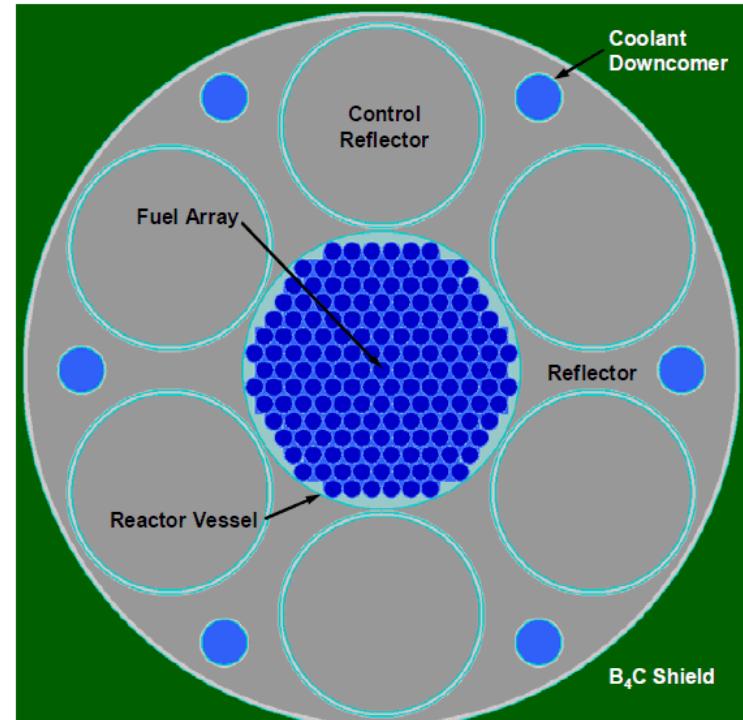
Modeling



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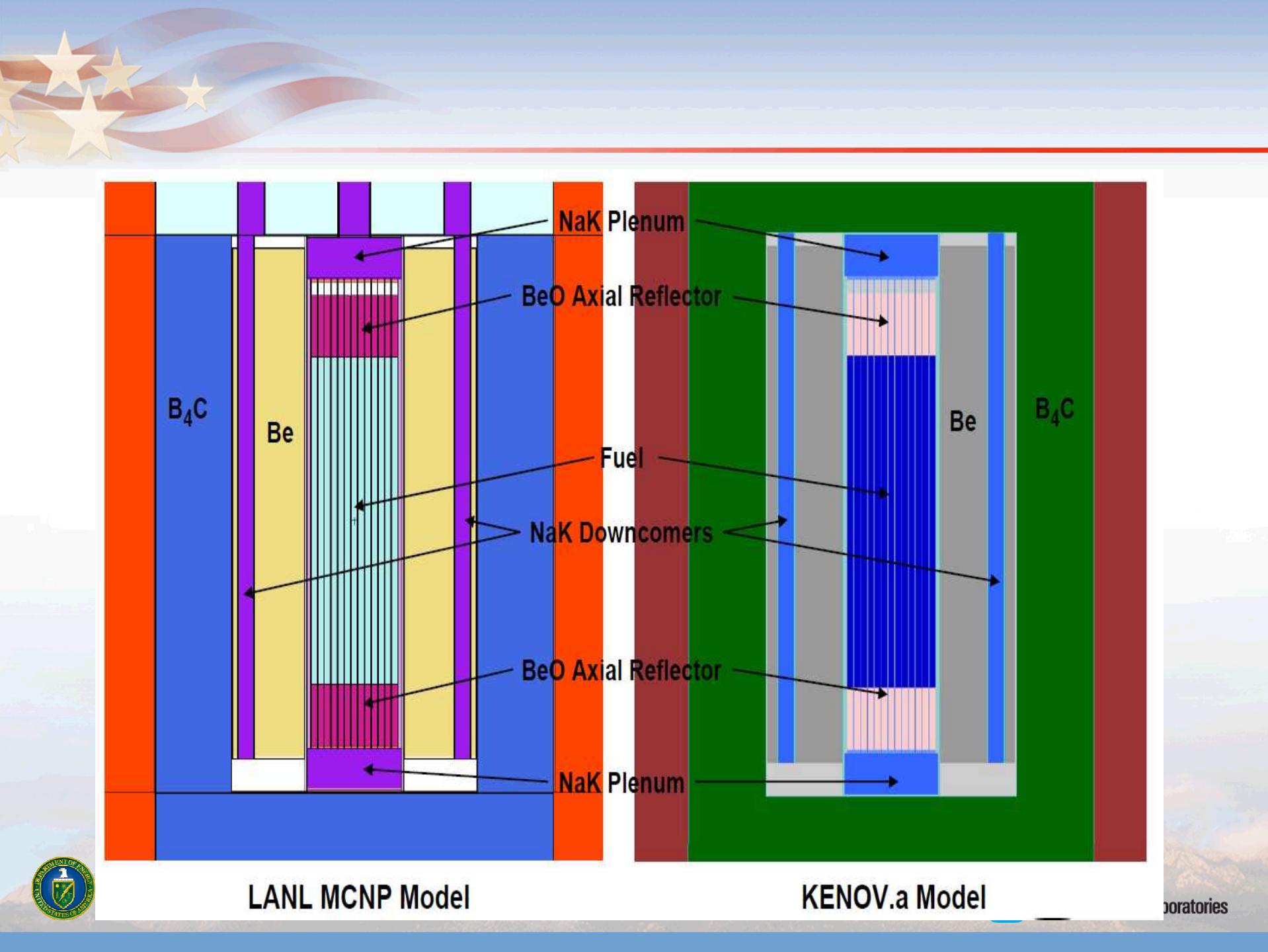
LANL MCNP Model



KENOVA Model



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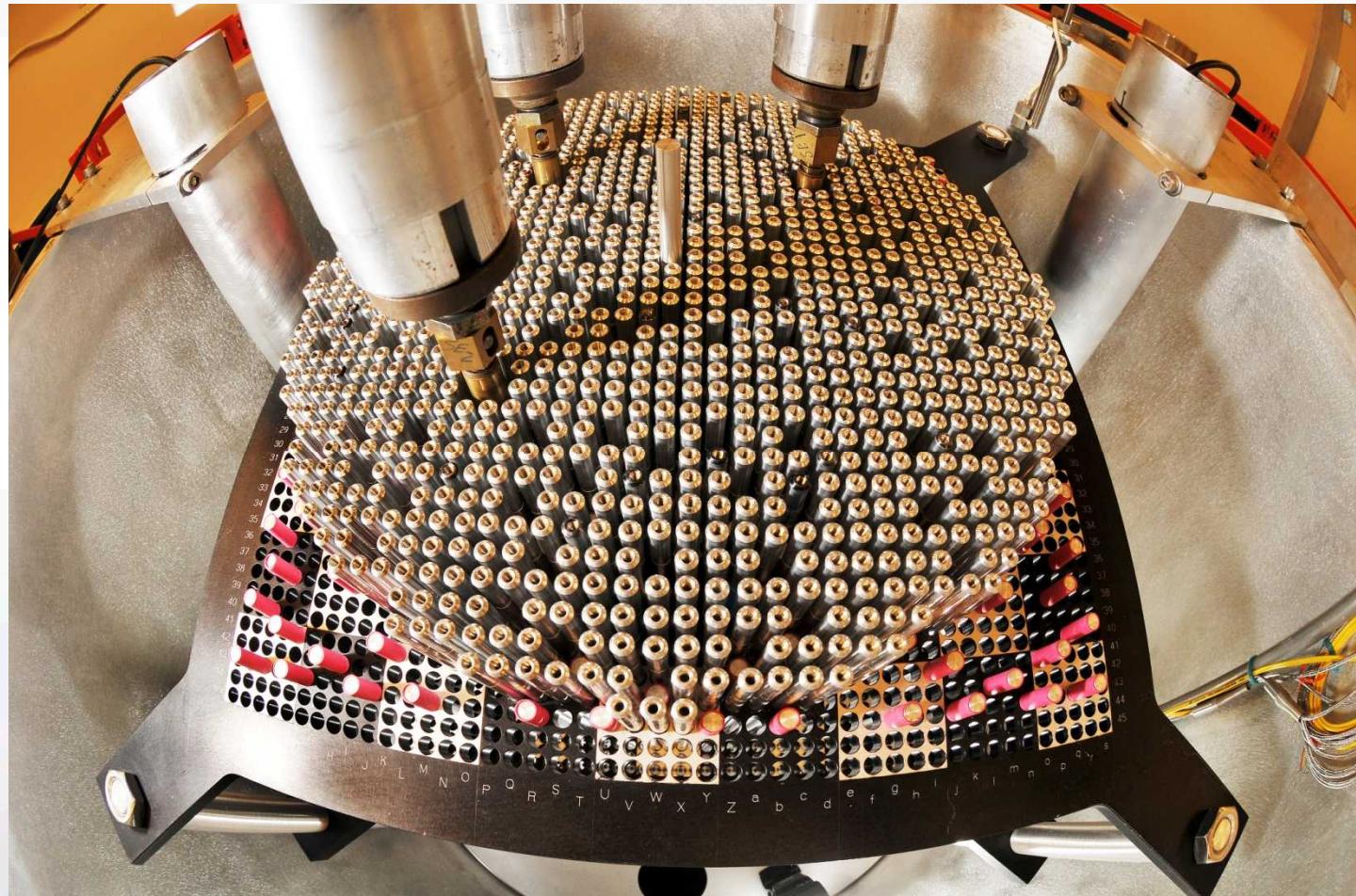
LANL MCNP Model

KENOVA Model

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Critical Experiments

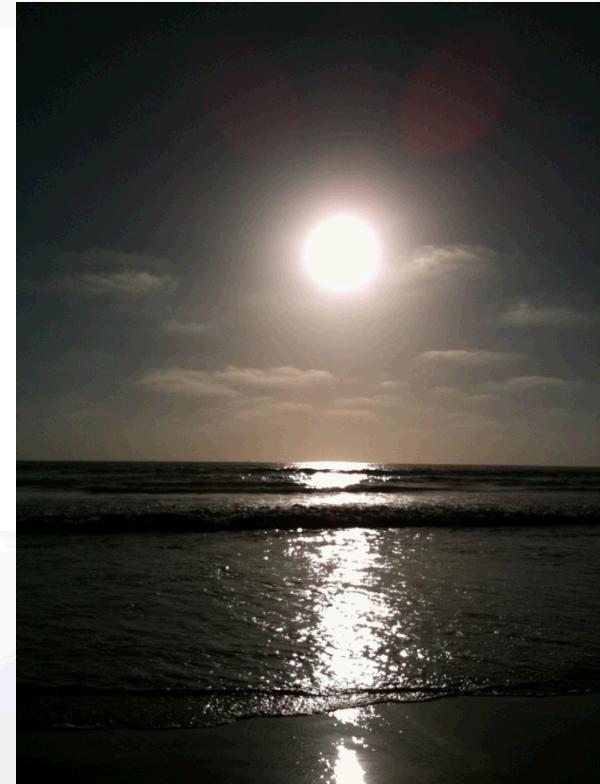


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What SEERI did for me?

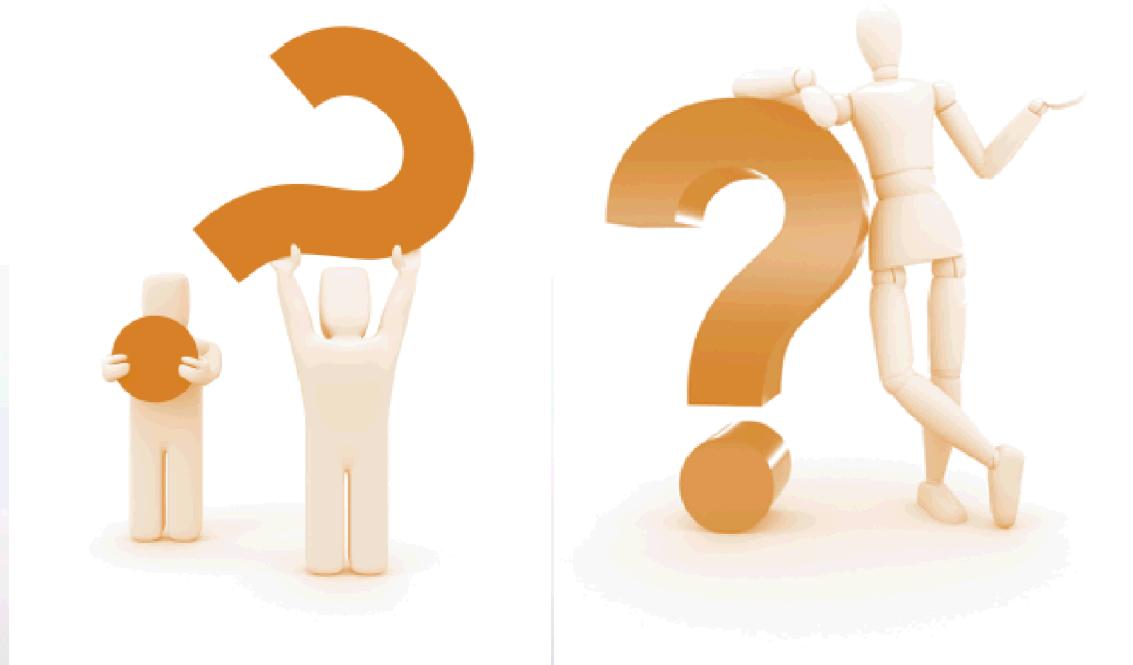
- **Half of my funding for work**
- **Travel**
 - Attended National ANS Conference
 - Attended Nuclear Criticality Safety Division Topical Meeting



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Thank You, and Any Questions?



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